IFWP

```
RAW SEQUENCE LISTING          DATE: 01/18/2006
PATENT APPLICATION:  US/09/980,845A     TIME: 15:36:00

     Input Set : A:\seqlistcorrected.2002.06.21.txt
     Output Set: N:\CRF4\01182006\I980845A.raw

 3 <110> APPLICANT: Handfield, Martin
 4         Brady, Jeannine
 5         Progulske-Fox, Ann
 6         Hillman, Jeffrey D.
 8 <120> TITLE OF INVENTION: Microbial Polynucleotides Expressed During Infection of
 9         a Host
11 <130> FILE REFERENCE: MBHB00-505B
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C--> 13 `<140> CURRENT APPLICATION NUMBER: US/09/980,845A`
C--> 14 `<141> CURRENT FILING DATE: 2001-11-15`
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16 <150> PRIOR APPLICATION NUMBER: 60/147,551
17 <151> PRIOR FILING DATE: 1999-08-06
19 <150> PRIOR APPLICATION NUMBER: PCT/US00/21340
20 <151> PRIOR FILING DATE: 2000-08-04
22 <160> NUMBER OF SEQ ID NOS: 20
24 <170> SOFTWARE: PatentIn Ver. 2.1
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 849
28 <212> TYPE: DNA
29 <213> ORGANISM: Actinobacillus actinomycetemcomitans
31 <220> FEATURE:
32 <221> NAME/KEY: misc_feature
33 <222> LOCATION: (566)
34 <223> OTHER INFORMATION: N stands for any nucleotide.
36 <220> FEATURE:
37 <221> NAME/KEY: misc_feature
38 <222> LOCATION: (625)
39 <223> OTHER INFORMATION: N stands for any nucleotide.
41 <220> FEATURE:
42 <221> NAME/KEY: misc_feature
43 <222> LOCATION: (627)
44 <223> OTHER INFORMATION: N stands for any nucleotide.
46 <220> FEATURE:
47 <221> NAME/KEY: misc_feature
48 <222> LOCATION: (636)
49 <223> OTHER INFORMATION: N stands for any nucleotide.
51 <220> FEATURE:
52 <221> NAME/KEY: misc_feature
53 <222> LOCATION: (650)
54 <223> OTHER INFORMATION: N stands for any nucleotide.
56 <220> FEATURE:
57 <221> NAME/KEY: misc_feature
58 <222> LOCATION: (656)
59 <223> OTHER INFORMATION: N stands for any nucleotide.
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Does Not Comply
Corrected Diskette Needed

p.4

RAW SEQUENCE LISTING   DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A TIME: 15:36:00

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\I980845A.raw

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 61 <220> FEATURE:
 62 <221> NAME/KEY: misc_feature
 63 <222> LOCATION: (661)
 64 <223> OTHER INFORMATION: N stands for any nucleotide.
 66 <220> FEATURE:
 67 <221> NAME/KEY: misc_feature
 68 <222> LOCATION: (672)
 69 <223> OTHER INFORMATION: N stands for any nucleotide.
 71 <220> FEATURE:
 72 <221> NAME/KEY: misc_feature
 73 <222> LOCATION: (681)
 74 <223> OTHER INFORMATION: N stands for any nucleotide.
 76 <220> FEATURE:
 77 <221> NAME/KEY: misc_feature
 78 <222> LOCATION: (720)
 79 <223> OTHER INFORMATION: N stands for any nucleotide.
 81 <220> FEATURE:
 82 <221> NAME/KEY: misc_feature
 83 <222> LOCATION: (723)
 84 <223> OTHER INFORMATION: N stands for any nucleotide.
 86 <400> SEQUENCE: 1
 87 gatcgcgtaa acggtgtaac acggaaagca attgtttaat gtcggcaaaa tgcagccctg 60
 88 tggtcggttc gtccagaata tacagggttt tgcccgtatc ccgtttggag agttccgtcg 120
 89 ccagtttcac ccgttgcgct tccccgccgg acagggtggt agaggattgc cccaagcgaa 180
 90 tataagacaa gcccacgtca atcagggtgt gcaatttacg cgcaatcatt ggaatggcat 240
 91 cgaaaaactc gcgcgcatct tccaccgtca tgtccagcac ctgatgaatg gttttacctt 300
 92 tgtagcggat ttccagggtt tcgcgattgt aacgcttgcc tttacattgg tcgcaaggca 360
 93 cgtacacatc gggcaggaag tgcatttcca ctttgattac gccgtcgccc tggcaggctt 420
 94 acagcgcccg ccgcgcacgt taaaactgaa acgccccggg ttataaccgc gcgcacgggc 480
 95 tttcggtacg ccggcaaaca attcgcgaat cggcgtgaat acgcccgtgt aagttgcccg 540
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W--> ` 96 gttggagcgt ggcgtgcgtc caatcnggct ttggttaata tcaatacttt atcgaaaaat 600`
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 97 tccaaacctt taatggactt gtacngngaa acctcngcat tttctgcacn attaangcgt 660
 98 nttgtgcaat anggaacaaa ntgtcgttaa tcagtgtaga atttacctta accggacacn 720
 99 ccngtgatgc aggtaaataa gcccacggga atgtctaaat tgacgttttt caggttgtta 780
100 ccggaagcgc cgaacaattt gagcattttt ttcttatcaa gtgcggtacg tttttcggt 840
101 atttcgatc 849
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 357
106 <212> TYPE: DNA
107 <213> ORGANISM: Actinobacillus actinomycetemcomitans
109 <400> SEQUENCE: 2
110 gatcactaag ttgttcaatc ctttcgcttg ggaatctttg tctaaatacg gtttatgttg 60
111 cattgcgtta acgtctaaat cacctttaga cactgcagtg tttggcaagg cgtagtcatg 120
112 aataaaacgt attctacgtc taagttgtat ttttcttttg ccactttcgc tgcgatttca 180
113 gccacttggt gttccggtcc tgccatcacg cccactttga ttgttgccgg ggcttctgcc 240
114 gccggtttgt ctgccggtgc ggcttccggt tttttctctt cattacaagc ccgttaaggc 300
115 gaatacggag gctaatgttg cgacgcctaa taattttttt caagttcata aaagatc 357
118 <210> SEQ ID NO: 3
119 <211> LENGTH: 886
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 61 <220> FEATURE:
 62 <221> NAME/KEY: misc_feature
 63 <222> LOCATION: (661)
 64 <223> OTHER INFORMATION: N stands for any nucleotide.
 66 <220> FEATURE:
 67 <221> NAME/KEY: misc_feature
 68 <222> LOCATION: (672)
 69 <223> OTHER INFORMATION: N stands for any nucleotide.
 71 <220> FEATURE:
 72 <221> NAME/KEY: misc_feature
 73 <222> LOCATION: (681)
 74 <223> OTHER INFORMATION: N stands for any nucleotide.
 76 <220> FEATURE:
 77 <221> NAME/KEY: misc_feature
 78 <222> LOCATION: (720)
 79 <223> OTHER INFORMATION: N stands for any nucleotide.
 81 <220> FEATURE:
 82 <221> NAME/KEY: misc_feature
 83 <222> LOCATION: (723)
 84 <223> OTHER INFORMATION: N stands for any nucleotide.
 86 <400> SEQUENCE: 1
 87 gatcgcgtaa acggtgtaac acggaaagca attgtttaat gtcggcaaaa tgcagccctg 60
 88 tggtcggttc gtccagaata tacagggttt tgcccgtatc ccgtttggag agttccgtcg 120
 89 ccagtttcac ccgttgcgct tccccgccgg acagggtggt agaggattgc cccaagcgaa 180
 90 tataagacaa gcccacgtca atcagggttt gcaatttacg cgcaatcatt ggaatggcat 240
 91 cgaaaaactc gcgcgcatct tccaccgtca tgtccagcac ctgatgaatg gttttacctt 300
 92 tgtagcggat ttccagggtt tcgcgattgt aacgcttgcc tttacattgg tcgcaaggca 360
 93 cgtacacatc gggcaggaag tgcatttcca ctttgattac gccgtcgccc tggcaggctt 420
 94 acagcgcccg ccgcgcacgt taaaactgaa acgccccggg ttataaccgc gcgcacgggc 480
 95 tttcggtacg ccggcaaaca attcgcgaat cggcgtgaat acgcccgtgt aagttgcccg 540
 96 gttggagcgt ggcgtgcgtc caatcnggct ttggttaata tcaatacttt atcgaaaat 600
 97 tccaaacctt taatggactt gtacgngaa acctcngcat tttctgcacn attaangcgt 660
 98 nttgtgcaat anggaacaaa ntgtcgttaa tcagtgtaga atttacctta accggacacn 720
 99 ccngtgatgc aggtaaataa gcccacggga atgtctaaat tgacgttttt caggttgtta 780
100 ccggaagcgc cgaacaattt gagcattttt ttcttatcaa gtgcggtacg ttttttcggt 840
101 atttcgatc                                                      849
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 357
106 <212> TYPE: DNA
107 <213> ORGANISM: Actinobacillus actinomycetemcomitans
109 <400> SEQUENCE: 2
110 gatcactaag ttgttcaatc ctttcgcttg ggaatctttg tctaaatacg gtttatgttg 60
111 cattgcgtta acgtctaaat cacctttaga cactgcagtg tttggcaagg cgtagtcatg 120
112 aataaaacgt attctacgtc taagttgtat ttttcttttg ccactttcgc tgcgatttca 180
113 gccacttggt gttccggtcc tgccatcacg cccactttga ttgttgccgg ggcttctgcc 240
114 gccggtttgt ctgccggtgc ggcttccggt tttttctctt cattacaagc ccgttaaggc 300
115 gaatacggag gctaatgttg cgacgcctaa taattttttt caagttcata aaagatc 357
118 <210> SEQ ID NO: 3
119 <211> LENGTH: 886
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W--> marks line 96

RAW SEQUENCE LISTING   DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A   TIME: 15:36:00

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\I980845A.raw

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120 <212> TYPE: DNA
121 <213> ORGANISM: Actinobacillus actinomycetemcomitans
123 <220> FEATURE:
124 <221> NAME/KEY: misc_feature
125 <222> LOCATION: (554)
126 <223> OTHER INFORMATION: N stands for any nucleotide.
128 <220> FEATURE:
129 <221> NAME/KEY: misc_feature
130 <222> LOCATION: (596)
131 <223> OTHER INFORMATION: N stands for any nucleotide.
133 <400> SEQUENCE: 3
134 gatcaaactg gtggcgcaag ggcagcgcgt agcaaattta cccgatattt tggtctatgc 60
135 gcgcgtcggc aacggcatgg tagggcgacg ccgtggttta aaccaagcca aagcggaatg 120
136 gcgcttattt aagctaaaac accatcttgg cattcaggga tttttatccg ggctattcac 180
137 ttttgtcctg cgttccggtg ccagattatt gccgacatca ttactgaaaa acatctatca 240
138 aaccttttta agaaaataac atgatgaaat taaactgtat tttaaaaata tccggaattt 300
139 ccaccgcact ttttctagcg ggttgttcct caaattcaag tgcgccgacg caatcctctg 360
140 agcaggcgaa ttctgttacg gctgtgaatc ccactgcggt gtacagtaag ccccgcactt 420
141 tggataactt caacgattat gtgaatttct taaaaggtaa agcagcggca gaaggcgttt 480
142 ctgccgacgt attgaatgca caaaataata ttaattatat tcaaaaatcc gtggatttgg 540
```
W--> 143 acgatcaaca agcnggcaga attcgcaagc gtgatccaaa tgccccgccg atcatnaatt 600
```
144 ccgaacggca cgaccaatta cttaaatcgt gtattaacca agaataaagt agacacggca 660
145 gaagcacgtt attgggaaca attgccgcag cttgaaaatg cttcaaagaa attcagcgta 720
146 ccgaaaaatt atctgttagc cttgtggggc atggagagta gctttggcta ttatcagggc 780
147 aattacgatg tgttatccac cttagccact cttgcttttg acggacgccg tgaagcctta 840
148 ttcagcaaag aattcatcgc cgccatgaaa atgctacagc gcgatc       886
151 <210> SEQ ID NO: 4
152 <211> LENGTH: 507
153 <212> TYPE: DNA
154 <213> ORGANISM: Actinobacillus actinomycetemcomitans
156 <220> FEATURE:
157 <221> NAME/KEY: misc_feature
158 <222> LOCATION: (4)
159 <223> OTHER INFORMATION: N stands for any nucleotide.
161 <220> FEATURE:
162 <221> NAME/KEY: misc_feature
163 <222> LOCATION: (9)
164 <223> OTHER INFORMATION: N stands for any nucleotide.
166 <220> FEATURE:
167 <221> NAME/KEY: misc_feature
168 <222> LOCATION: (21)
169 <223> OTHER INFORMATION: N stands for any nucleotide.
171 <220> FEATURE:
172 <221> NAME/KEY: misc_feature
173 <222> LOCATION: (23)
174 <223> OTHER INFORMATION: N stands for any nucleotide.
176 <220> FEATURE:
177 <221> NAME/KEY: misc_feature
178 <222> LOCATION: (29)
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RAW SEQUENCE LISTING   DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A   TIME: 15:36:00

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\I980845A.raw

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179 <223> OTHER INFORMATION: N stands for any nucleotide.
181 <220> FEATURE:
182 <221> NAME/KEY: misc_feature
183 <222> LOCATION: (32)
184 <223> OTHER INFORMATION: N stands for any nucleotide.
186 <220> FEATURE:
187 <221> NAME/KEY: misc_feature
188 <222> LOCATION: (35)..(36)
189 <223> OTHER INFORMATION: N stands for any nucleotide.
191 <220> FEATURE:
192 <221> NAME/KEY: misc_feature
193 <222> LOCATION: (39)
194 <223> OTHER INFORMATION: N stands for any nucleotide.
196 <220> FEATURE:
197 <221> NAME/KEY: misc_feature
198 <222> LOCATION: (42)
199 <223> OTHER INFORMATION: N stands for any nucleotide.
201 <220> FEATURE:
202 <221> NAME/KEY: misc_feature
203 <222> LOCATION: (45)
204 <223> OTHER INFORMATION: N stands for any nucleotide.
206 <220> FEATURE:
207 <221> NAME/KEY: misc_feature
208 <222> LOCATION: (49)
209 <223> OTHER INFORMATION: N stands for any nucleotide.
211 <220> FEATURE:
212 <221> NAME/KEY: misc_feature
213 <222> LOCATION: (52)
214 <223> OTHER INFORMATION: N stands for any nucleotide.
216 <220> FEATURE:
217 <221> NAME/KEY: misc_feature
218 <222> LOCATION: (58)
219 <223> OTHER INFORMATION: N stands for any nucleotide.
221 <220> FEATURE:
222 <221> NAME/KEY: misc_feature
223 <222> LOCATION: (61)..(62)
224 <223> OTHER INFORMATION: N stands for any nucleotide.
226 <220> FEATURE:
227 <221> NAME/KEY: misc_feature
228 <222> LOCATION: (65)
229 <223> OTHER INFORMATION: N stands for any nucleotide.
231 <220> FEATURE:
232 <221> NAME/KEY: misc_feature
233 <222> LOCATION: (69)
234 <223> OTHER INFORMATION: N stands for any nucleotide.
236 <220> FEATURE:
237 <221> NAME/KEY: misc_feature
238 <222> LOCATION: (73)
239 <223> OTHER INFORMATION: N stands for any polynucleotide.
```

"n" can only represent a single nucleotide

RAW SEQUENCE LISTING   DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A   TIME: 15:36:00

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\I980845A.raw

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241  <220> FEATURE:
242  <221> NAME/KEY: misc_feature
243  <222> LOCATION: (97)
244  <223> OTHER INFORMATION: N stands for any nucleotide.
246  <220> FEATURE:
247  <221> NAME/KEY: misc_feature
248  <222> LOCATION: (102)
249  <223> OTHER INFORMATION: N stands for any nucleotide.
251  <220> FEATURE:
252  <221> NAME/KEY: misc_feature
253  <222> LOCATION: (138)
254  <223> OTHER INFORMATION: N stands for any nucleotide.
256  <220> FEATURE:
257  <221> NAME/KEY: misc_feature
258  <222> LOCATION: (457)
259  <223> OTHER INFORMATION: N stands for any nucleotide.
261  <220> FEATURE:
262  <221> NAME/KEY: misc_feature
263  <222> LOCATION: (459)
264  <223> OTHER INFORMATION: N stands for any nucleotide.
266  <220> FEATURE:
267  <221> NAME/KEY: misc_feature
268  <222> LOCATION: (467)
269  <223> OTHER INFORMATION: N stands for any nucleotide.
271  <400> SEQUENCE: 4
272  ttgntaccnt agccgctgac nanaactanc angcnntgna tnatntcgna tnattaanat 60
273  nngcnaggng cancagctta cctttgccga cggttcnctg tntgaaagcg ccattcgcaa 120
274  agtgccggtg gaggcggnga aaattcactc acttggtgcg gaaggcaatg atgtgggatt 180
275  gaaagcccat catggcgggt ggataaagcg ttattttta tgtcggcaga tgcctttcct 240
276  gcgttaaatg cgttattaga cgaaaatttt tcgtatcagg acacagcagt ttacggcgag 300
277  aattttgtgg tttccgcgct gaatgaagat tccgtgtgtg tgggcgatat ttatcaaatc 360
278  ggctcctgcg tggtggaggt gtcgcagccg cgtaaacctt gtgagcgctt atcgaaaaat 420
279  accaataatc cgaacacgca acaaccgtg tacgctncng ctggtcnggc tggtatgtgc 480
280  cggtggtacc ccaaggggga aattcaa                                    507
283  <210> SEQ ID NO: 5
284  <211> LENGTH: 1087
285  <212> TYPE: DNA
286  <213> ORGANISM: Actinobacillus actinomycetemcomitans
288  <220> FEATURE:
289  <221> NAME/KEY: misc_feature
290  <222> LOCATION: (622)
291  <223> OTHER INFORMATION: N stands for any nucleotide.
293  <220> FEATURE:
294  <221> NAME/KEY: misc_feature
295  <222> LOCATION: (642)
296  <223> OTHER INFORMATION: N stands for any nucleotide.
298  <220> FEATURE:
299  <221> NAME/KEY: misc_feature
300  <222> LOCATION: (661)
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W--> (indicated at line 272)

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A   TIME: 15:36:01

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\I980845A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 566,625,627,636,650,656,661,672,681,720,723
Seq#:3; N Pos. 554,596
Seq#:4; N Pos. 4,8,21,23,29,32,35,36,39,42,45,49,52,58,61,62,65,69,73,97
Seq#:4; N Pos. 102,138,457,459,467
Seq#:5; N Pos. 622,642,661,669,685,690,700
Seq#:6; N Pos. 609,614,651,665
Seq#:7; N Pos. 532,630,696,710,722,725
Seq#:8; N Pos. 538
Seq#:12; N Pos. 131,151,170,178,194,199,209
Seq#:18; Xaa Pos. 43,50,59,66,69

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\I980845A.raw

L:13 M:270 C: Current Application Number differs, Replaced Application Number
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:540
M:341 Repeated in SeqNo=1
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:540
L:272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:600
M:341 Repeated in SeqNo=5
L:381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:600
M:341 Repeated in SeqNo=6
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:480
M:341 Repeated in SeqNo=7
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:120
M:341 Repeated in SeqNo=12
L:709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:32
M:341 Repeated in SeqNo=18